

CLAIMS

What is claimed is:

1. A device for clamping an elongated workpiece for processing, the workpiece having a longitudinal axis, the device comprising:

a conveyor arranged to convey the workpiece along a central path to a workstation, the central path being generally parallel to the longitudinal axis of the workpiece;

at least one elongated link arm oriented generally parallel to the central path;

a plurality of clevis-shaped members, the clevis-shaped members being spaced apart along the path, each clevis-shaped member having a pair of uprights, each of the clevis-shaped members coupled to the at least one link arm; and

at least one actuator operatively connected to the at least one link arm;

wherein in response to operation of the actuators, the at least one link arm is shiftable between a first position in which the pair of uprights of each of the plurality of clevis-shaped members are disposed away from the central path and a second position in which the pair of uprights of each of the plurality of clevis-shaped members are shifted

toward the central path, thereby clamping and centering the workpiece at the workstation.

2. The device of claim 1, wherein each of the clevis-shaped members includes a vertically oriented axle having an axis perpendicular to and intersecting the central path.

3. The device of claim 1, wherein the at least one link arm is connected to one upright of the pair of uprights of each of the plurality of clevis-shaped members.

4. The device of claim 1, including a controller arranged to control the operation of the at least one actuator.

5. The device of claim 1, the conveyor being vertically adjustable for raising and lowering the workpiece relative the clevis-shaped clamping members.

6. A device for clamping an elongated workpiece for processing, the workpiece having a longitudinal axis, the device comprising:

a plurality of clamps disposed along a path, each of the clamps adapted to be shiftable between a retracted position and a clamped position, the clamps straddling the path and centering the workpiece when in the clamped position;

a link arm coupled to each clamp and adapted to shift the clamps in unison; and

at least one actuator operationally coupled to at least one of the clamps;

wherein operation of the actuator shifts the plurality of clamps between the retracted and the clamped positions.

7. The device of claim 6, wherein each clamp includes a pair of uprights.

8. The device of claim 6, further comprising a conveyor arranged to convey the workpiece along the path to a workstation, the path being generally parallel to the longitudinal axis of the workpiece.

9. The device of claim 8, the conveyor being vertically adjustable for raising and lowering the workpiece relative to the clamps.

10. The device of claim 6, including a controller arranged to control the operation of the at least one actuator.

11. A device for clamping an elongated workpiece for processing, the workpiece having a longitudinal axis, the device comprising:

a plurality of clamps disposed along a path, each of the clamps adapted to be shiftable between a retracted position and a clamped position, the clamps straddling the path and centering the

workpiece when in the clamped position, each clamp including an axle having a vertical axis oriented perpendicular to and intersecting a center of the path, each clamp adapted to rotate about the vertical axis; a link arm disposed generally parallel to the path and coupled to each clamp and adapted to shift the clamps in unison; and at least one actuator operationally coupled to one of the clamps and arranged to shift the plurality of clamps in unison between the retracted position and the clamped position.

12. The device of claim 11, wherein the actuator is operationally coupled to the axle of one of the clamps.

13. The device of claim 11, wherein each clamp includes a pair of uprights.

14. The device of claim 11, further comprising a conveyor arranged to convey the workpiece along the path to a workstation, the path being generally parallel to the longitudinal axis of the workpiece.

15. The device of claim 14, the conveyor being vertically adjustable for raising and lowering the workpiece relative to the clamps.

16. The device of claim 11, including a controller arranged to control the operation of the at least one actuator.